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| <div><div>7590</div><div>09/24/2007</div><div>Fay Kaplun & Marcin, LLP Suite 702 150 Broadway New York, NY 10038</div></div> | | | | |
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| | | | LO, SUZANNE | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/816,666

Applicant(s)

FAIST ET AL.

Examiner

Suzanne Lo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. Claims 1-5 and 7-24 have been presented for examination.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: a step to model a process control system.

Claim 8 is indefinite "conventional interface methods" as it is unclear what interface methods Applicant is claiming. Furthermore, the specification of the instant application does not clearly define the metes and bounds of this limitation.

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Claims 20-21 are indefinite as it is unclear what is meant by a "frame application" and the specification of the instant application does not clearly define the metes and bounds of this limitation.

There are numerous instances of indefinite claim language due to a lack of antecedent basis. For example, claim 1 recites the limitation "the topography" in the second line. There is insufficient antecedent basis for this limitation in the claim. Other instances of a lack of antecedent basis include but are not limited to: claim 1, "the current arrangement", "the state of the elements"; claim 2, "the position of the input windows", "the current operation"; claim 3, "the communication status"; claim 4, "the state of the associated user interface". As the claims are replete with 112 issues, Applicant is required to correct all errors.

Claim Interpretation

4. The clauses "to thereby be able to" of claims 1 and 14 and "is adapted to" of claims 15-21 add nothing to the patentability of said claims. Specifically, claims 15-24 are directed to a process control system that is adapted to perform various functions. Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure (See MPEP 2111.04).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 15-24 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Meystel et al. (U.S. Patent No. 6,102,958).

As per claim 15, Meystel is directed to a system comprising a host PC *for loading a process control system* and at least one target apparatus connected to the host PC via a bus system (column 9, lines 35-47), whereby the system is adapted *to display the control system which comprises elements of a user interface* in a form of a tree structure, whereby the tree structure comprises nodes, each node providing at least one input window having a plurality of attributes for setting and/or monitoring *the* target apparatus assigned thereto, whereby a memory of the system is adapted to store *an* arrangement of the tree structure as a project, and a list of all windows opened during operation as well as their attributes as an operating session being automatically *restored* during reloading of the process control system.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 1-5 and 8-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dynasim AB ("Dymola Dynamic Modeling Laboratory User's Manual")** in view of **Smith et al. (U.S. Patent Application Publication 2002/0149628 A1)**.

As per claim 1, Dynasim is directed to a method for automatic modeling a process control system (page 13, **"Features of Dymola"**, 1st paragraph), whereby elements of a user interface are arranged in a tree structure reflecting a topography of the elements in the process control system (page 15, 1st Figure and accompanying text), whereby each element is assigned to at least one input window having a plurality of attributes for setting and/or monitoring a target apparatus controllable in the process control system (page 18, 1st Figure and accompanying text, pages 24-25), whereby a current arrangement of the tree structure is stored as a project (page 23, **"Introduction"** and page 27, 1st paragraph) whereby the input windows for setting and monitoring the target apparatus provided by the elements in the project tree serve for at least one of displaying values measure by the target apparatus, diagnosis of the target apparatus and parametrizing of the target apparatus (Dynasim, page 14 and 36-37) but fails to explicitly disclose a list of all windows opened during a current operation as well as their attributes are stored as an operating session, to thereby restore a state of the elements when loading the process control system again.

Smith teaches a list of all windows opened during a current operation as well as their attributes are stored as an operating session, to thereby restore a state of the elements when loading the process control system again ([0190] and Table 6). It would have been obvious at the time of the invention to an ordinary person skilled in the art to combine the modeling of a

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process control system method of Dynasim with the list of windows and attributes stored as an operating session in order to provide a variety of arrangements of a user interface to an operator (Smith, [0190]).

As per claim 2, the combination of Dynasim and Smith already discloses the method according to claim 1, whereby a handling software is used to store the tree structure as well as the list of windows and their attributes, whereby the handling software further stores the position of the input windows during a current operation (Smith, [0190]).

As per claim 3, the combination of Dynasim and Smith already discloses the method according to claim 2, whereby the handling software stores a communication status, indicating an online or offline status, respectively, for storing the state of the elements (Dynasim, pages 142-144).

As per claim 4, the combination of Dynasim and Smith already discloses the method according to claim 2, whereby the handling software for storing a state of the elements stores the state of the associated user interface of the respective input windows (Smith, [0190]).

As per claim 5, the combination of Dynasim and Smith already discloses the method according to claim 1, whereby only distinct communication links to distinct nodes of the project are selected to be restored (Dynasim, page 159).

As per claim 8, the combination of Dynasim and Smith already discloses the method according to claim 1, whereby a state of the input windows opened during operation of the process control system is queried and stored by conventional interface methods (Dynasim, page 18, 1st Figure and accompanying text).

As per claim 9, the combination of Dynasim and Smith already discloses the method according to claim 1, whereby the project and the states of the elements of the project are stored in project files (Dynasim, pages 24-25).

As per claim 10, the combination of Dynasim and Smith already discloses the method according to claim 1, whereby session information is stored in the project or references to the *project* including session information are stored (Dynasim, pages 24-25, and 124).

As per claim 11, the combination of Dynasim and Smith already discloses the method according to claim 1, whereby upon opening the project it is verified whether session information is present, and if present, *a* last present view of the project with all opened dialogs is restored and all connections of *a* last session are restored (Dynasim, pages 124, 142-144).

As per claim 12, the combination of Dynasim and Smith already discloses the method according to claim 1, whereby a session manager manages a list of sessions and names of active sessions for each project and stores the latter in a non-volatile project directory (Dynasim, page 124).

As per claim 13, the combination of Dynasim and Smith already discloses the method according to claim 12, whereby the session manager offers a dialog during loading of *the* project, in which the names of all available sessions for *the* project are offered for selection (Dynasim, page 124).

Claim 14 is directed to a method for automatic modeling a process control system comprising at least one target apparatus, composed of elements with the same limitations as the elements of claim 1 and therefore is rejected over the same prior art combination.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dynasim AB ("Dymola Dynamic Modeling Laboratory User's Manual") in view of Smith et al. (U.S. Patent Application Publication 2002/0149628 A1) in further view of Kim et al. ("A Two-Stage Modeling and Simulation Process for Web-Based Modeling and Simulation").

As per claim 7, the combination of Dynasim and Smith already discloses the method according to claim 1, but fails to explicitly disclose whereby *a* current state of the input windows

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opened during operation of the process control system is transmitted to *a* handling software in *an* XML string. Kim teaches representing dynamic model information using XML (**page 232 and Figure 1 and accompanying text**). It would have been obvious at the time of the invention to an ordinary person skilled in the art to combine the process control modeling method of Dynasim and Smith with the XML handling software in order to represent both geometry and dynamic model information effectively.

8. **Claims 15-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Meystel et al.** (U.S. Patent No. 6,102,958) in view of **Dynasim AB** ("Dymola Dynamic Modeling Laboratory User's Manual") in further view of **Smith et al.** (U.S. Patent Application Publication 2002/0149628 A1).

As per **claim 15**, Meystel is directed to a system comprising a host PC *for loading a process control system* and at least one target apparatus connected to the host PC via a bus system (**column 9, lines 35-47**) but fails to explicitly disclose whereby the system is adapted *to display the process control system which comprises elements of a user interface* in a form of a tree structure, whereby the tree structure comprises nodes, each node providing at least one input window having a plurality of attributes for setting and/or monitoring *the* target apparatus assigned thereto, whereby a memory of the system is adapted to store *an* arrangement of the tree structure as a project and whereby the input windows for setting and monitoring the target apparatus provided by the elements in the project serve for at least one of displaying values measured by the target apparatus, diagnosis of the target apparatus and parameterizing of the target apparatus.

Dynasim teaches whereby the process control system is adapted to be *display the process control system which comprises elements of a user interface* in a form of a tree structure (**page 15, 1st Figure and accompanying text**), whereby the tree structure comprises nodes, each node providing at least one input window having a plurality of attributes for setting and/or monitoring

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the target apparatus assigned thereto (page 18, 1st Figure and accompanying text, pages 24-25), whereby a memory of the system is adapted to store *an* arrangement of the tree structure as a project (page 23, "Introduction" and page 27, 1st paragraph) and whereby the input windows for setting and monitoring the target apparatus provided by the elements in the project serve for at least one of displaying values measured by the target apparatus, diagnosis of the target apparatus and parameterizing of the target apparatus (Dynasim, page 14 and 36-37). It would have been obvious at the time of the invention to an ordinary person skilled in the art to combine the process control system of Meystel with the user interface of Dynasim in order to allow customization of the user interface (Dynasim, page 23).

Meystel and Dynasim fail to explicitly disclose and a list of all windows opened during operation as well as their attributes as an operating session being automatically restored during reloading of the process control system. Smith teaches a list of all windows opened during the same current operation as well as their attributes are stored as an operating session, to thereby be able to restore the state of the elements when loading the process control system again ([0190] and Table 6). It would have been obvious at the time of the invention to an ordinary person skilled in the art to combine a process control system of Meystel and Dynasim with the list of windows and attributes stored as an operating session in order to provide a variety of arrangements of a user interface to an operator (Smith, [0190]).

As per claim 16, the combination of Meystel, Dynasim, and Smith already discloses the system according to claim 15, whereby the memory is adapted to store *a* position of the input windows (Smith, [0190]).

As per claim 17, the combination of Meystel, Dynasim, and Smith already discloses the system according to claim 15, whereby the memory is adapted to store *a* communication status, indicating *one of an online status and an offline status*, respectively, of the input window (Dynasim, pages 142-144).

As per claim 18, the combination of Meystel, Dynasim, and Smith already discloses the system according to claim 15, whereby the memory is adapted to store a state of the user interface associated to respective input windows (Smith, [0190]).

As per claim 19, the combination of Meystel, Dynasim, and Smith already discloses the system according to claim 15, whereby the memory is adapted to store several operating sessions for each project (Dynasim, page 124).

As per claim 20, the combination of Meystel, Dynasim, and Smith already discloses the system according to claim 15, whereby the system is adapted to be implementable permanently in a frame application (page 13, "Features of Dymola").

As per claim 21, the combination of Meystel, Dynasim, and Smith already discloses the system according to claim 20, whereby the system is adapted to be implementable into the frame application as an add-in (page 13, "Features of Dymola").

As per claim 22, the combination of Meystel, Dynasim, and Smith already discloses the system according to claim 15, whereby the input windows are windows for visualizing measurement values obtained by the at least one target apparatus (Dynasim, pages 36-37).

As per claim 23, the combination of Meystel, Dynasim, and Smith already discloses the system according to claim 15, whereby the input windows are windows for diagnosis messages (Dynasim, pages 36-37).

As per claim 24, the combination of Meystel, Dynasim, and Smith already discloses the system according to claim 15, comprising a session manager (Dynasim, page 124).

Response to Arguments

9. Applicant's arguments filed 07/05/07 have been fully considered but they are not persuasive.

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10. The objection to the Drawings is maintained. The Specification of the instant application provides no support in which the process control system of Figure 1 implements the present invention. The Specification merely reads "FIG. 1 is a schematic diagram of a process control system;" ([0023]) and "FIG. 1 shows a schematic diagram of a process control system 1, comprising a PC 2, connected to a control unit 4 via an interface 3. The control unit is connected via a bus system 5 to two target apparatuses 6 which in this case are sensors." ([0029]).

Additionally, "a process control system" as illustrated by Figure 1 is admitted by Applicant as prior art in Background of the Invention of the Specification, in particular, paragraph [0005] which reads, "Such a system could e.g. comprise a host-PC having a serial interface, a communication device and at least one sensor connected thereto via a bus". As only that which is old is illustrated, the objection to the Drawings is maintained.

11. The 112, 2nd paragraph rejection of claim 5 in regards to being indefinite on how the communication links are mapped to distinct nodes has been withdrawn. All other 112 rejections are maintained.

Nowhere in claims 1 and 14 are there any steps recited, much less the necessary step of modeling a process control system. No steps are recited where modeling occurs. Furthermore, all recited limitations are preceded by optional language such as "whereby" or intended use language "input windows *for* setting and monitoring" and are not given patentable weight.

In response to the Applicant's argument that since one skilled in the art would be familiar with particular interface methods such as the API of Microsoft Windows and the SUS of Austin group that the limitation "conventional interface methods" is rendered definite, "conventional interface methods" are neither disclosed in the Specification of the instant application, nor has Applicants defined what renders an interface method conventional or non-conventional.

In response to Applicant's argument that because the Specification describes using software components as add-ins that "frame application" is definite, the Specification only

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describes software components as add-ins and fails to disclose any “frame applications” in terms of what software components they are and that they can be used as add-ins. In fact, nowhere in the Specification is there support for the term “frame application”.

12. The 102 prior art rejection of claims 15-24 is maintained. In response to applicant's argument that Meystel does not disclose “whereby a memory of the system is adapted to store an arrangement of the tree structure as a project, and a list of all windows opened during operation as well as their attributes as an operating session being automatically restored during reloading of the process control system”, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. As claim 15 recites all limitations with intended use language “a host PC *for* loading a process control system” and “the system *is adapted to display*” and “a memory of the system *is adapted to store*” all limitations following intended use or optional language is not given patentable weight. As claim 15 is directed to a system claim, the limitations need to recite how the system components are structurally adapted to perform the limitations claimed in order to be given patentable weight.

13. The Applicant's argument that Dynasim fails to disclose the limitation of “whereby the input windows for setting and monitoring the target apparatus provided by the elements in the project serve for at least one of displaying values measured by the target apparatus, diagnosis of the target apparatus and parameterizing of the target apparatus” is unpersuasive due to several reasons. First the limitation recited above is part of a “whereby” clause. As stated in MPEP 2111.04, that a “whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited.” (*Minton v. Nat 'l Ass 'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003)). Thus all limitations in the aforementioned whereby clause is not given patentable weight.

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Furthermore, even without the “whereby” language, the above limitation is still directed to intended use due to language such as “the input windows *for* setting and monitoring” and “the input windows *serve for* at least one of...”. The limitation of measuring is still not given patentable weight without the “whereby” language. The Examiner notes that the majority of the claims are replete with “whereby” clauses and intended use limitations, none of which are given patentable weight.

Additionally, in line with recent court decisions, a person skilled in the art uses known elements for their known purpose, and the claim limitations, “input windows for setting and monitoring” wherein “the input windows....serve for displaying values...” are known elements used for their intended purpose, rendering the aforementioned limitations obvious. KSR; Leapfrog Enterprises, Inc. v. Fisher-Prince, Inc., 485 F.3d 1157, 82 USPQ 1687 (Fed. Cir. 2007).

Additionally, the fact that Dynasim discloses simulation does not exclude Dynasim teaching or anticipating measuring. The simulation of measuring, as disclosed on pages 36-37 of Dynasim still anticipates measuring parameters of a simulated target apparatus.

Finally, Dynasim clearly teaches values which have been measured by a target apparatus on page 14, Architecture of Dymola, experimental data. As experimental data inherently discloses real-world data measured from a target apparatus, 103 rejection of claim 1 under Dynasim in view of Smith is maintained. Thus the 103 rejections of claims 1-5 and 7-24 are maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. The prior art made of record is not relied upon because it is cumulative to the applied rejection. These references include:

1. U.S. Patent Application Publication 2004/0254949 A1 published by Amirthalingam on 12/16/04.

2. U.S. Patent No. 6,993,723 B1 issued to Danielsen et al. on 01/31/06.

3. U.S. Patent Application Publication 2002/0199123 A1 published by McIntyre et al. on 12/26/02.

4. U.S. Patent Application Publication 2004/0117766 A1 published by Mehta et al. on 06/17/04.

10. All Claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suzanne Lo whose telephone number is (571)272-5876. The examiner can normally be reached on M-F, 8-4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571)272-2297. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Suzanne Lo
Patent Examiner
Art Unit 2128

SL
09/10/07


KAMINI SHAH
SUPERVISORY PATENT EXAMINER